AN

ESSAY

ON THE

FORMATION, STRUCTURE, AND USE

OF THE

TEETH.

[PRICE ONE SHILLING.]

A N

E S S A Y

ON THE

FORMATION, STRUCTURE, AND USE

OF THE

T E E T H.

WITH A

S U P P L E M E N T,

CONTAINING

The neceſſary Directions and Inſtructions for cleaning and preſerving them.

WHEREIN

The Opinions of ſome ancient and modern Writers on the Subject, will be impartially conſidered.

BY MAYER LEWIS,

OPERATOR FOR THE TEETH IN OXFORD.

Dedicated to the GENTLEMEN of that Univerſity.

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MDCC LXXII.

TO THE

GENTLEMEN

OF THE

UNIVERSITY OF OXFORD.

GENTLEMEN,

THE numerous favours which, during a reſidence of five years in Oxford, I have received from you, will, I hope, juſtify the propriety of this dedication; and make that, which otherwiſe would appear an act of the higheſt preſumption in me, conſidered as a ſmall tribute of my gratitude and reſpect.

Though I might be juſtly accuſed of a vanity nearly allied to the extravagance of folly, ſhould I preſume to think that I had a deſerved claim to your attention and peruſal of the following pages, either from the merit of their author, or from their own intrinſic value, yet I cannot but hope for your favourable acceptance of them, when I conſider how nearly connected the ſubject of this treatiſe is, not only with the neceſſary regard which ought to be paid to that moſt valuable of all earthly bleſſings, and ſublunary poſſeſſions, health, but alſo with the objects of your preſent purſuits at the Univerſity, and with your future connections with ſociety in general. For give me leave (not improperly or ludicrouſly) to obſerve, that how-

however ample and extenſive the boundaries of your preſent ſtudies may be, that aſſiſtance is certainly requiſite which can promote and facilitate the communication of them to the world. The oratory of the pulpit and the bar, with regard to its excellence, depends greatly on the preſervation of the teeth; the teeth, which form the regular pronunciation of the voice, and prevent, in a great meaſure, all impediments and obſtructions of the ſpeech.

I could here dwell on the conveniences that attend the preſervation of the teeth in private life: the eaſe in maſtication, and the aſſiſtance which it gives to the mixture of our food with the ſalivary liquors, which

which mixture is neceſſary towards digeſtion: the air of floridity and youth, which it imparts to the complexion, and the prevention of all offenſive and diſagreeable humours, which would otherwiſe grow in the mouth and gums.—But I ſhall reſerve the diſcuſſion of theſe points to the proper places in which they will be ranged in the following pages.

Could the wiſhes of an unimportant individual have any efficacy towards the continuance of that celebrity and reputation in which Oxford, that excellent ſeminary of learning and polite erudition, is deſervedly held, I ſhould be happy

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in having a more effectual opportunity than the preſent of ſubſcribing myſelf,

GENTLEMEN,

With the higheſt eſteem

And gratitude,

Your moſt obedient,

And obliged humble ſervant,

MAYER LEWIS.

AN

AN

ESSAY

ON THE

TEETH.

I.

THE complaint which generally attends the execution of a work of this kind ſeems to be, that the author, being puffed up with a vain conceit and opinion of his own abilities and conſequence, takes too frequent and unneceſſary occaſions of introducing in his writings technical terms, and obſcure expreſſions of the art; making that, which profeſſedly undertakes in a clear and ſimple manner to treat of the diſorders incidental to the teeth, and the remedial applications neceſſary in ſuch a caſe, a work of laborious inquiry, and a mere diſplay of anatomical

knowledge. This error I will endeavour cautiouſly to avoid; as well, becauſe the natural hiſtory and anatomical ſtructure of the teeth have been explained and amply treated of in ſome late very ingenious and elaborate treatiſes (thoſe I mean written by Mr. John Hunter, F. R. S. and ſurgeon to St. George's Hoſpital; and Mr. Beardmore, ſurgeon dentiſt in ordinary to his Majeſty) as becauſe I ſhould be too circumſcribed in ſuch an attempt by the limits of theſe pages: ſuch an attempt requiring more time and leiſure thoroughly to finiſh than I could be able to ſecure from my neceſſary avocations of buſineſs. I therefore beg leave to recommend the treatiſes above mentioned, from the peruſal of which I have received great pleaſure and ſatisfaction, to thoſe, whoſe curioſity or profeſſion lead them to attend to the *minutiæ* of the ſubject.

My deſign is merely to give a plain and brief account of the teeth, the compaints they are ſubject to, and the methods of cure; omitting nothing, I hope, which is neceſſary

neceſſary to be known, and avoiding all obſcurities of ſtile and meaning. The ſubject has been already amply and copiouſly treated of, and I have not the vanity to think that I ſhall be able to ſet it, or any branch of it, in a new or more inſtructive point of view.

The teeth are hard ſubſtances of bone and enamel growing in the cavities of the upper and lower jaw. Theſe cavities anatomiſts call the *alveoli*, which have circular proceſſes embracing the body of the tooth with great cloſeneſs, and thereby are to be conſidered as principal ſupports of the teeth.

Theſe *alveolar proceſſes* are covered by a compact elaſtic ſubſtance or fleſhy covering, called the *gums*; which covering adhering firmly to the *alveolar proceſſes* inveſts and contains the teeth firm in their ſockets: and are beſides an admirable protection for them againſt the injuries they might receive from an expoſure to the air and cold, and from the occaſional preſſure of our food againſt the thin membrane which covers them. The circular ridge

which ſeparates and diſtinguiſhes the body and roots, or fangs of the teeth, and to which the gums grow up, and are cloſely attached, is called the neck or collar of the tooth. The fangs or roots are thoſe parts which are hid from our ſight in the ſockets: they are covered with a thin vaſcular membrane, called the *perioſtæum*, which unites them firmly to the jaw. The inner ſubſtance of the tooth is the bone, having an internal cavity, which extends nearly the whole length of the tooth; beginning at the point of the root or fang, and ending in the body of the tooth. This cavity is well ſupplied with nerves and blood veſſels, which nouriſh the teeth, promote their growth; and when ſubject to any diſorder or obſtruction, are the ſeat of the moſt exquiſite ſenſations of pain. The enamel grows only on, and ſurrounds the body of the tooth. It is a very white and ſmoothly poliſhed ſubſtance, of a degree of hardneſs ſo great, as to be impenetrable to our keeneſt inſtruments: in cutting or dividing it therefore, we are obliged to uſe files, and even thoſe muſt be ſkilfully uſed

by

by the operators, to prevent any damage being given to the remaining poliſh of the enamel.

The *ſhape* of the teeth being within the immediate extent of every one's own knowledge, I ſhall not here make mention of it. Their *number* is uncertain; though I believe they rarely exceed thirty. Mr. Hunter ſays, that he once ſaw only twenty-ſeven, but never more than thirty-two; and makes thereupon this very ſenſible remark, "That where the number is leſs than thirty-two, the deficiency is in the laſt grinder."—This is, however (I mean the number of teeth in a full ſubject) a point of mere curioſity; ſince during the courſe of my practice, I never could diſcover any difference in the formation or ſtructure of them, whether more or leſs in number: but they all equally as well perform their uſual functions, and anſwer the purpoſes for which they are deſigned. The number is not certain, I think, for this reaſon, *viz.* that if it were, when the jaw bone

of

of a man is enlarged, and grows in proportion to the increaſe of his age, we do not find any difference in the *alveolar ſpaces*, either with regard to their number or extenſion, which would otherwiſe undoubtedly happen in the caſe between a man, who in his perfect ſtate, had thirty-two teeth, and of another, who had only thirty.

The above is a brief deſcription of the ſituation and ſtructure of the teeth: the formation of them is curious and particular, which I will endeavour to give as ſatisfactory and conciſe an account of, as the limits of this work will permit.

The contents of the *alveoli*, or cavities in the jaw, in which the teeth grow; are at almoſt the earlieſt ſtate of infancy, ſome little ſoft pulpy ſubſtances which are attached to the bottom of the ſockets by a nervous filament, whoſe veſſels diffuſe themſelves through the pulpy ſubſtances, and the thin membrane that covers them.

Nouriſh-

Nouriſhment is hereby conveyed to theſe pulpy ſubſtances, which, as the child increaſes in age, begin gradually to oſſify, and advance higher and higher from the ſockets. The tooth is yet imperfectly formed, not having gained any degree of ſtrength and rigidity. By degrees they begin to preſs againſt the gums, which, by conſtant attrition are inflamed and affected with redneſs and ſwelling, and occaſion great pain and uneaſineſs to the infant. What is called *the cutting of the teeth* now begins, which is a violent effort of nature to pierce through the confinement of the gums, where the teeth have undergone the ſtate of formation and oſſification, and to appear above the ſockets. As this operation of nature is attended with great and continued pain to the child, and frequently not finiſhed without the hazard of much danger, it has been a matter of ſurprize to ſome gentlemen of eminence in ſurgery. that a new and more expeditious method has not been introduced to aſſiſt the cutting of the teeth, and that the efforts and endeavours

vours of nature have not been, as in almoſt all other caſes, promoted by the aſſiſtance of art. Thoſe gentlemen have thought, and with great appearance of reaſon and good ſenſe, that no danger or inconvenience would attend the opening of the gums at the particular time of the firſt appearance of dentition, with an inſtrument, and thereby, by making a way for the teeth to raiſe themſelves from the ſockets to prevent the ſlow advances of nature. The inſtrument certainly muſt be managed with a nice and ſkilful hand; or it may, by penetrating too deep, do much harm and damage to the tooth itſelf, not yet ſufficiently hardened. I cannot ſuggeſt to myſelf any plauſible objection to the propriety and expediency of this plan; however, I willingly ſubmit this opinion to the judgments of thoſe gentlemen, who claim a ſuperior knowledge in this point, from their attendance upon children in their infancy; my practice having been chiefly confined to the care of the teeth in their full grown and perfect ſtate.

Anatomiſts

Anatomiſts divide the teeth into three claſſes; *viz.* The *inciſores*, or cutting teeth, the *canini*, or canine teeth, and the *molares* or Grinders: the firſt claſs including the four anterior teeth; the ſecond including the two next, one on each ſide, called the *canine teeth*, from the ſimilarity and reſemblance they bear to the teeth of dogs; and the third including the reſt. For a particular deſcription of which, I beg leave to refer the curious reader to Mr. Hunter's late treatiſe, which I mentioned before, where he will receive every degree of intelligence and ſatisfaction to his inquiries. I do not here take ſo much notice of them, as perhaps ſome people may think I ought; as their ſituation and parts are pretty univerſally marked out to every one's knowledge, and all that could be ſaid would amount only to ſome comparative remarks on their different degrees of prominence, thickneſs, or other inherent properties.

Having thus briefly treated of the formation and ſtructure of the teeth, the third

propoſed point, *viz. their uſe*, comes under our conſideration. This, though already apppearing ſufficiently clear and comprehenſive, may be thought to ſtand in need of no farther explanatory elucidation; but really the preſervation and care of the teeth being a matter of no ſmall conſequence, indeed of much greater importance than the generality of mankind ſeem from their indolence and inattention to them to ſuſpect, I beg leave to be indulged in a few words. The teeth are parts which will ſooner decay and become diſordered through neglect, than any other parts of our Frame; and, when diſordered, occaſion greater pain, and introduce a greater variety of other complaints than can be conjectured upon caſual conſideration. An enumeration of the benefits ariſing from their *perfect* ſtate may therefore make us more attentive to them, and more deſirous of avoiding the numerous train of inconveniences and diſorders we ſhall feel upon their decay and *imperfect* ſtate.

The

The moſt common and principal uſes which we find to reſult from the growth and perfection of the teeth, are the aſſiſtances they give us in maſtication, and in ſpeech. I ſpeak from the common experience which every one muſt be preſumed to be in poſſeſſion of, when I mention the painful and unpleaſant operation of chewing our food, at a time when any accident or diſorder has deprived us of the temporary or entire loſs of our teeth, not to mention any phyſical reaſons of the harm it may do our conſtitution, when the neceſſary aſſiſtance which the food we eat requires to promote its ſpeedy mixture with the ſalivary liquor, facilitating thereby its paſſage into the ſtomach, and occaſioning a pleaſant and ſafe digeſtion, is loſt or impaired. Another inconvenience will ariſe in this caſe, from the continual preſſure of our food againſt the gums, which may irritate and inflame them; occaſioning, thereby, ſoreneſs and ſwellings.

In ſpeech, we all know the well timed, and regular aid, which the teeth in their perfect ſtate give to our voice and pronunciation; and, by conſequence, the eſſential ſervice they are of to the ſtudy and practice of oratory in public life; where the form of the Engliſh government and conſtitution, the elevated rank and eſteem in which the liberal profeſſions are held, and the reputation and faſhionable celebrity which *public ſpeaking* claims, give the happieſt opportunities for eloquence to diſplay her powers, and engage and captivate the attention of the largeſt aſſemblies: and in private life, where a graceful and elegant addreſs are no leſs neceſſary to attach us to the good opinion and favour of our neighbours, who would not be ſuſceptible of ſo favourable an impreſſion in our behalf, by an imperfect and broken voice, and a difficulty of expreſſing our ſentiments with fluency, and facility; which I affirm, will be the caſe in a diſordered and rotten ſtate of the teeth. The tongue, indeed, modifies the voice, and gives it different forms, but I cannot help

being

being ſeriouſly of opinion, that the various graces of pronunciation ariſe from the aſſiſtance of the teeth; I mean according to the propulſion of the tongue againſt the teeth, which detains or tranſmits the ſounds at pleaſure. This is, indeed, too curious, and indeed too philoſophical an argument to be attended too in this ſhort treatiſe, nor is it at all of conſequence in common obſervations. The eaſineſs wherewith we ſpeak, and the pleaſure we take in hearing an harangue gracefully, and well pronounced are, I am ſure, not ſuperficial or trifling recommendations to us to keep, when in our power, the organs of ſpeech perfect and unimpaired; of which organs I by no means reckon the teeth in an inferior claſs.

A collateral advantage ariſing from the care and preſervation of the teeth, is the grace and ſymmetry they give to the countenance, keeping the complexion in a ſtate of youthful bloom, and preventing all wrinkles about the face; which the depreſſion of the jaws, in conſequence of the

loſs

loſs of our teeth, would inevitably occaſion. It is, I am told by my own and other people's obſervations, a prevailing faſhion in the preſent age to keep the face and the complexion as delicate and ſmooth as art can make them: (I ſpeak not here of our Engliſh ladies, whoſe care in this particular is laudable, graceful, and characteriſtic of that amiable part of the creation) but, without meaning any offence to that part of mankind, whom the uncouth ruſticity and unpoliteneſs of ſome amongſt us think they diſgrace by giving them the appellation of *Beaus*, I beg leave to remind the younger part of my readers, that though they may poſſibly take *too much* pains in adorning their perſons, and thereby incur the charge of effeminacy, and the want of a decent and proper manlineſs, yet I think they may oftentimes take *too little* care in this particular; and none can be attended with more diſagreable and offenſive ſenſations, both to themſelves and their friends, than the neglect of the teeth.—Excuſes may be made frequently for any neglect of

Dreſs

Dreſs— ſlovenly apparel—or unpowdered curls, which may be occaſioned by a want of time to undergo the various proceſſes of dreſſing, or the avocations of buſineſs. But no excuſes can be made, or taken for a dirty and foul ſet of teeth, which argue an habitual neglect of them, and either a wilful or (what is juſt as bad in this caſe) an unintentional omiſſion of the employment of cleaning them; which employment, when rightly underſtood, and frequently practiſed, is attended with no length of time, nor the leaſt trouble.

The diſorders to which the teeth are ſubject, either ſimply from the neglect of them, or from an ill habit and ſtate of body, are numerous. Suffice it here to mention a few; a perfect knowledge of which will, I am perſuaded, give weight to my opinion and advice, relative to the care of them. The tooth ache, is a pain, which, as it ariſes from various cauſes, I ſuppoſe, there are few amongſt us, who have at all times been totally exempt from. The pain and

anguiſh

anguiſh are more violent and excruciating than the viſitation of diſeaſes to other parts of the body. Shakeſpear, the immortal poet of the Engliſh nation ſays,

—There never was philoſopher yet,
Who could endure the *tooth-ache* patiently.

Meaning certainly thereby, that with whatever great fortitude, and philoſophical patience, other diſorders might be born and combated with.—The pain of the tooth ache ſurpaſſed all human reſolution and courage. The anguiſh is frequently ſo inſupportable that it forces us to uſe violent means to obtain ſome kind of temporary eaſe, which means occaſion, not a long time after, a greater and more afflicting return of the diſorder.—Such are, I think unneceſſary extraction of the teeth, which, according to ſome modern operators, is the univerſal method of cure; without conſidering that the pain may be oftentimes alleviated by gentle methods, and the tooth preſerved entire. It frequently happens that the pain is ſeverely felt in ſound teeth,

owing

owing to ulcers and excreſcencies on the gums, ſudden colds, from ſympathy with the neighbouring affected parts, or other cauſes. Can the extraction of thoſe ſound teeth be therefore in ſuch caſes deemed neceſſary, or even expedient? common experience and ſenſe ſhew the contrary.—We cannot perform the operation without increaſing the evil which it is intended to diminiſh or remove. By uncovering the roots, and baring the ſockets of the neighbouring teeth, we make them looſe, and ſuſceptible of pain, and cauſe frequent inflammations in their nerves and vaſcular parts. I have known not a few inſtances where the extraction of one of the *molares* or grinders has conſiderably weakened the jaw, though performed in a ſkilful manner, and by a violent diſtenſion of the muſcles of the jaw, brought on a great ſoreneſs and inflammation of them. I am, however, a great friend to extraction when

the circumſtances of the caſe poſitively demand it. Another method no leſs injudicious of expelling the pain, and gaining a temporary relief, is the filling the mouth with acrid and hot ſpices and ſubſtances, and burning ſpirituous liquors; which deaden all ſenſation for a while, but when their influence is at an end the pain returns with redoubled ſtrength and ſeverity: excluſive of the harm which ſuch applications certainly do the gums by diſpoſing them to inflammations, and occaſioning ſoreneſſes, and external ſwellings.

The tooth ache is frequently occaſioned by acrid humours being lodged in the ſockets of the teeth, and purulent matter, which affects the roots of the teeth, and is always attended with a foul and offenſive ſmell of the breath. In this caſe, if the cure be not ſpeedily undertaken, the whole

tooth

tooth becomes quite rotten and carious: the nerves and veſſels are corrupted, and ulcerations of the parts will enſue. Of this kind is the ſcurvy, that moſt inveterate enemy to the ſoundneſs of the teeth, which is however very effectually diſlodged by lancing the gums, and extracting the coagulated blood and matter. The tartar of the teeth is another cauſe of their deſtruction, which is a yellowiſh ſubſtance formed on the teeth, which hardens in time, and forms a compleat incruſtation over them: deforming and diſcolouring them, and by ſecretly and imperceptibly inſinuating itſelf in the *interſtices* of the teeth, open too great a paſſage between them, prevent the growth of the gums by an inconvenient preſſure of them, and are productive of a numerous train of diſorders. This tartar, however, when *early diſcovered*, is very eaſily removed, being at firſt of a ſoft pulpy nature, and may be rubbed off the teeth by

waſhing the mouth with clean water, and afterwards gently rubbing the teeth with a ſoft ſpungy bruſh, or by uſing any common tooth powder. When however it has formed an incruſtation too hard to be rubbed off in that manner, having acquired a ſtrong adheſion to the teeth, the operator's inſtrument muſt be uſed, but great care is neceſſary to be taken in the uſe of it, ſo as not to damage the enamel. Some kind of an inflammation in the gums generally attends this operation, which inflammation may however be reduced with gentle means.

Venereal complaints, and the great quantities of mercury which are generally adminiſtered, in ſuch caſes, affect the teeth and gums in a violent degree: deſtroy the nouriſhment which the teeth ſhould receive from the nerves and blood veſſels, impoveriſh and render the gums pale and flaccid, looſen the teeth from their ſockets, and occaſion

caſion putrid diſorders, attended with foulneſſes of breath. I am not verſed in ſurgery enough to be able to declare what methods, to prevent ſuch complaints and evils, ſhould be taken, during the continuance of that venereal diſorder to which they owe their riſe, but certainly would recommend at the re-eſtabliſhment of the patient's health, that he ſhould have his teeth thorougly cleaned, his gums lanced, and all the other neceſſary proceſſes performed, whereby the gums will regain their former redneſs and firmneſs, and adhere, as originally, cloſely to the teeth; the teeth will be cleared from all foul diſcolorations, all the coagulated blood will be removed from the ſockets, and every part be braced a new and ſtrengthened.

The tooth-ache is frequently communicated by *ſympathy*, from one tooth to another. This may ſeem ſurprizing, but I find all

all writers on the ſubject I have conſulted, agree in the opinion, though without aſſigning any cauſe for ſo extraordinary a phænomenon. We muſt not, however, carry our notions of ſympathetic affections ſo far as I remember one writer of my own country has done. I mean one *Durlach Coſel*, who was a German and lived I think in the year 1558 under Ferdinand the Firſt. In a treatiſe of his writing upon ſurgery, (which I remember to have ſeen in manuſcript in Leipſic) he poſitively affirms, that ſympathy may be communicated *by contact* to other animals: and mentions ſome inſtances where he has known the tooth-ache transferred from a man to a cat, by applying the man's cheek for a conſiderable time together, to that of the cat. The tooth-ache left the man, and the animal was ſeized with the violence of the pain, as was ſuppoſed, by the agony ſhe ſeemed to labour under, and the ſqualling

ſhe

ſhe made. This will, I make no doubt, be looked upon by all ſerious and ſenſible people as a fooliſh notion, and not founded in fact; and indeed I am greatly ſurprized that that writer ſhould ſo warmly inſiſt on the reality of it, as he was undoubtedly, by ſeveral works which he left behind him, a man of great wiſdom and learning.

I will now juſt mention a few caſes, in which extraction of the teeth may be expedient or neceſſary, which will introduce ſome obſervations upon artificial teeth, and the practice of filling up hollow teeth with gold or lead.

When the ſcurvy, or other putrid humour, lies preying upon the roots or fangs of the teeth, removed beyond the reach of thoſe inſtruments that can extract it from the gums by lancing them; when it deſtroys the nerves, and corrupts the foundation

dation of the tooth; in ſuch caſes, I muſt deem extraction neceſſary, and that it is ſo, will inconteſtibly appear, ſince we find the root or fang of the tooth quite covered with the corrupted matter, when we have pulled it out: which corrupted matter there is no poſſibility of reaching with our inſtruments, or expelling by any other means than extirpation, as it lies ſo cloſe and concealed. Were the tooth to continue in the head, the corrupted matter would eat the tooth gradually upwards, and occaſion a putrid decay of the gums. Stumps or portions of the roots of teeth which have either been broken off, or injudiciouſly extracted, ought certainly to be drawn. There is not much pain in this operation, when ſkilfully performed, in a comparative ſenſe with regard to *whole* teeth being extracted. Mr. Beardmore's opinion is, that "when any tooth-ache ariſes from a "portion of the root left behind, if the

"patient

" patient is unwilling to try this ſecond " operation, the pain may be ſometimes " removed by burning the nerve, or by " applying a very ſmall bit of lint dipped " in eſſential oil of cinnamon, over the " hollow part of the ſtump, or by intro- " ducing a bit of paſte made of opium, " camphor, and eſſential oil of pepper " mint." But with all poſſible deference to his opinion, I ſhould certainly prefer the extraction of the ſtump, and recommend it in ſuch ſtrong terms to the patient, as would, I think induce him to ſubmit to the operation. Palliative applications may give eaſe, though Mr. Beardmore ſeems himſelf to own the caſe to be uncertain, by making uſe of the word "*ſometimes*;" but I think the pain will return in a ſhort time, or the gums will grow over theſe ſtumps, and being conſtantly wounded by them, will be expoſed to frequent inflammations, and extremities of pain. I am happy in

having Mr. Beardmore's authority to ſanction my opinion, that "The ſtump or "root of a tooth is at all times eaſily taken "out, unleſs it grows to the jaw bone, "which is a very rare caſe; and nothing is "more erroneous than the popular notion "that ſtumps are very difficult to be remo-"ved, and that digging and punching (as "they call it) are abſolutely neceſſary."

Stopping the teeth, or filling them with gold, or lead, is a very uſeful practice, and attended with no inconveniences. This is neceſſary when the internal part of the tooth is deſtroyed, or waſted away, and ſomething muſt be put in the cavity, to prevent the air from piercing to the fang, or root of it, and occaſioning the tooth-ache, or a further decay; as alſo for hindering looſe bits of our food, *&c.* from lodging in the ſaid cavity. The cavity then, in which the nerve formerly lodged, muſt be

be well filled up with gold or lead, and, if occaſion be, may be faſtened by a wire or thread to the neighbouring teeth: however, after it has been well preſſed down in the hole, there will be no danger of its falling out.

When there is a real neceſſity of extracting teeth, or they grow looſe from any venereal or putrid diſorder in the blood, I am a great friend to the practice of ſupplying their places with artificial teeth. After a little uſe, they equally as well perform the different offices of real teeth, in maſtication, in ſpeech, and in appearance. Indeed to ſuch a pitch of greatneſs has the art and ingenuity of modern times arrived, that operators can make them, and fit them in the ſockets in ſuch a manner as not to be diſcernible from our natural teeth. After waſhing the mouth conſtantly for ſome time afterwards with ſome aſtringent liquors,

we find that the gums will closely adhere to these artificial teeth. I have frequently made and set whole rows of artificial teeth, which have looked very ornamental, and have given an healthy air to the countenance. The general objection seems to be that they do not sit firm and easy in the sockets, but are apt to fall out. This objection I flatter myself, in the course of my practice as a dentist, I can wholly obviate: for without meaning or wishing to be my own paneygrist, or desirous of arrogating any credit to extravagant professions which some modern operators for the teeth among us do, I can safely pronounce that this branch of the profession has employed greatly my time and attention, and I have, in consequence of that attention, discovered a method of setting and fixing them almost immoveably in the sockets, without the great number of wires and ligatures which are commonly used.

It remains for me now to ſay ſomething of the care and treatment of the teeth and gums, to prevent diſeaſes and complaints in them,—the methods of cure, and the neceſſary inſtructions for cleaning them, and preſerving their poliſh and whiteneſs.—But I here perceive a difficulty which I was not aware of at firſt, which is, the impoſſibility of all the rules and directions I mean to propoſe being equally ſalutary and efficacious in *all* caſes.—*Different* modes of treatment muſt be preſcribed in *different* caſes ;—and as it would be morally impoſſible for me now to know the different ſtate of the teeth in all my different readers, the various complaints they labour under, and whether they have ever taken care of their teeth or not, it is equally as impoſſible to advance any directions which would be of neceſſary aſſiſtance *to all, in all caſes* ; I ſhall however be exceedingly happy when any perſons approve ſo far of the ſentiments

and

and opinions advanced in the above pages, and think the contents of this work of conſequence enough to let me have the honour of attending them; whereby I ſhall be able upon a perſonal and direct view of the caſe to decide with ſome degree of certainty, and to found my advice upon ocular proofs.—The ſcurvy muſt certainly be removed from the gums, and all tartareous concretions ſeparated from the teeth, and all putrid matter diſlodged from the ſockets, before we can think of uſing any external application to make the teeth white and clean: for otherwiſe, might they not be compared, with great plauſibility, to ſepulchres and monuments, which are painted and adorned with pure and ſplendid marble on the outſide, but within contain nothing but rotteneſs and corruption?

—I

—I think it therefore neceſſary, as I ſaid before, to have the ſcurvy removed from the gums; all tartareous concretions ſeparated from the teeth; and all putrid matter diſlodged from the ſockets *firſt*; and *then* external applications may be uſed to make the teeth white, and free them from all diſcolorations.

I cannot help thinking, (notwithſtanding what I am going to ſay oppoſes the opinions and advice of ſome of our modern writers on the ſubject, though I believe that *Hoffman* and *Heiſter*, two German writers of eminence on phyſic and ſurgery, have introduced their approbation of the point in queſtion) that the occaſional uſe of tooth-picks is neceſſary in an high degree to remove what ſcraps of our food have lodged between the interſtices of our

teeth,

teeth, and to give a ſalutary *ſtimulus* to the gums. The objections I hear, are certainly levelled againſt too conſtant an application of tooth-picks; but to argue againſt a practice and uſe in general terms, becauſe it is frequently abuſed, and carried to too great extremities in particular inſtances, is abſurd and ridiculous. The cuſtom of waſhing the mouth with clear water, after the uſe of tooth-picks, is certainly judicious, and the cuſtom of uſing occaſionally cool emollient gargles.

I could willingly indulge my pen in a further prolixity, but am fearful of engaging the attention of my readers longer than their patience will countenance: and likewiſe of making this a work of laborious and diligent inveſtigations, which is only a ſhort collection of a few caſual obſerva-

ſervations and looſe remarks, which I have haſtily thrown together, and now venture to ſolicit the patronage and protection of the Gentlemen of the Univerſity of Oxford, as this publication is in conſequence of the deſire of many of them, founded upon too favourable an opinion of the author's merit.

FINIS.